Euphorbia marginata
Snow-on-the-mountain
by Kathy Lloyd, Montana Native Plant Society

Although most of the botanical collections amassed by the Lewis and Clark Expedition were made by Meriwether Lewis, several specimens may have been collected by William Clark. One of these is snow-on-the-mountain, *Euphorbia marginata*, collected on July 28, 1806 along the Yellowstone River in present-day Rosebud County.

On that date, the expedition was divided into three groups. Clark and his party were descending the Yellowstone River, traveling 73 miles by boat to the mouth of Graveyard Creek. Lewis and his men were on a forced flight to the mouth of the Marias River, escaping the Blackfoot Indians they had encountered the previous day. A third group, under John Ordway, was traveling by river from the Great Falls to the mouth of the Marias River to pick up Lewis and his party so they could travel down the Missouri by boat to rendezvous with Clark at the confluence with the Yellowstone River.

The snow-on-the-mountain specimen that exists today is housed in the Lewis & Clark Herbarium at the Academy of Natural Sciences in Philadelphia. It bears a label applied by Frederick Pursh that reads, "On the Yellowstone River. Jul. 28th 1806." Pursh, a botanist of the day, reviewed Lewis and Clark's plant specimens, many of which were included in his treatment of North American flora called *Flora Americae Septentrionalis*, published in 1814. Snow-on-the-mountain is one of many plants that Pursh named and described that were new to western science. The specimen from Montana is credited as the source for Pursh's description.

Although Lewis and Clark botanical scholars believe that Clark collected the snow-on-the-mountain specimen that still exists, Lewis collected the same plant earlier and made a full description of it in the list sent with the specimens that were shipped back to St. Louis from Fort Mandan in April, 1805. That specimen is, unfortunately, lost.

Snow-on-the-mountain belongs to the spurge family, Euphorbiaceae, and is in the same genus as leafy spurge, the invasive noxious weed. This member of the family, however, is a native to Montana and is not invasive. The plant is an annual and can reach a height of three feet. As with all members of the spurge family, the plant has a milky, white juice and can cause dermatitis in some people. The leaves are alternate and clasp the stem, becoming whorled at the base of the flower branches. The leaves have pointed tips and rounded bases, and as Lewis said in his shipment notes, "the leaf near the large stem is green and is edged with white; they grow smaller and more numerous as they approach the flower or the extremity of the limb." The flower heads are small and clustered in inflorescences at the end of the branches. Snow-on-the-mountain prefers calcareous soils in prairies, waste places and along roads and is found in the Great Plains from Minnesota to Montana, south to Texas and east to Florida and New Hampshire. It is present in the Canadian provinces of Ontario, Manitoba and Quebec.

Native plant landscapers use snow-on-the-mountain and it is a good choice in dry grasslands or disturbed sites. In fact, snow-on-the-mountain has increased its range due to escapes from cultivation in the Great Plains and elsewhere.

Native Americans used snow-on-the-mountain medicinally. The Lakotas used the tea to stimulate milk production in new mothers and used crushed leaves as a liniment for swellings. The Kiowa used snow-on-the-mountain for chewing gum. The plant is generally considered to be toxic, however, and can be emetic and purgative if taken internally. Animals as well as people are susceptible to the skin dermatitis caused by the plant's milky sap.

Enjoy snow-on-the-mountain in its native eastern Montana home, and be aware of invasive plants, like its relative leafy spurge, that can reduce available habitat for Montana's special native plants.